



HI96728 · HI96786

Nitrate Portable Photometers

- **CAL Check™**
 - Allows for performance verification and calibration of the meter using NIST traceable standards.
- **GLP**
 - Review of the last calibration date.
- **Auto-shut off**
 - Automatic shut off after 10 minutes of non-use when the meter is in measurement mode. Prevents wastage of batteries in the event the meter is accidentally left on.
- **Battery status indicator**
 - Indicates the amount of battery life left.
- **Built-in timer**
 - Display of time remaining before a measurement is taken. Ensures that all readings are taken at the appropriate reaction intervals for the test being performed.
- **Error messages**
 - Messages on display alerting to problems including no cap, high zero, and standard too low.
- **Cooling lamp indicator**
 - To maintain the desirable wavelength to be used for absorbance, it is necessary to ensure components are not overheated from the heat generated by the tungsten lamp. Each photometer is designed to allow a minimal amount of time for components to cool. The cooling lamp indicator is displayed prior to a reading being taken.
- **Units of measure**
 - Appropriate unit of measure is displayed along with reading.

Significance of Use

Nitrogen is abundant in the Earth's atmosphere and is present in water in the form of nitrate, nitrite, and ammonia. Plants use nitrogen as a nutrient to build proteins by tracking it in through their root system. Nitrate is formed in water mainly through rainfall, decomposition of organic matter, and runoff from manmade pollutants such as sewage waste and fertilizers. Almost all surface waters have a measurable level of nitrate, and a moderate amount is considered beneficial. Large amounts of nitrate, however, can lead to eutrophication which may result in decreased levels of dissolved oxygen in the water.

Specifications	HI96728 Nitrate-Nitrogen	HI96786 Nitrate
Range	0.0 to 30.0 mg/L (ppm)	0 to 100 mg/L (ppm)
Resolution	0.1 mg/L	1 mg/L
Accuracy @ 25°C (77°F)	±0.5 mg/L ±10% of reading	±5 mg/L ±5% of reading
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	
Power Supply	9V battery	
Auto-off	after ten minutes of non-use in measurement mode; after one hour of non-use in calibration mode; with last reading reminder	
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing	
Dimensions	192 x 104 x 69 mm (7.6 x 4.1 x 2.7")	
Weight	320g (11.3 oz.)	
Method	adaptation of cadmium reduction method causes amber tint in sample	
Ordering Information	HI96728 and HI96786 are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instruction manual. CAL Check standards and testing reagents sold separately	
	HI96728C and HI76786C include photometer, CAL Check standards, sample cuvettes (2) with caps, 9V battery, scissors, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately	
Reagents and Standards	HI96728	HI96728-11 CAL Check standard cuvettes
		HI93728-01 reagents for 100 tests
		HI93728-03 reagents for 300 tests
	HI96786	HI96786-11 CAL Check standard cuvettes
		HI93728-01 reagents for 100 tests
		HI93728-03 reagents for 300 tests

The HI96728 and HI96786 portable photometers are for the measurement of nitrate. Hanna's portable photometers feature an advanced optical system; the combination of a special tungsten lamp, a narrow band interference filter, and silicon photodetector ensure accurate photometric readings every time. The Hanna exclusive CAL Check feature utilizes ready-made, NIST traceable standards to verify both meter validation and calibration. The exclusive cuvette locking system ensures that the cuvette is inserted into the measurement cell in the same position every time to maintain a consistent path length.